

# The Characteristics and Satisfaction of the Patients Using Vaginal Pessaries

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**Objective:** To study the characteristics of pelvic organ prolapse (POP) patients that used a pessary.

**Design:** Prospective, descriptive study

**Setting:** Urogynecology Clinic, Ramathibodi Hospital, Faculty of Medicine, Mahidol University

**Material and Method:** The authors conducted a prospective, observational study. The average age, parity, average body mass index, menopausal age, pessary type, and reasons for pessary use were collected in the present study. The symptoms, satisfaction, complication, and continuation rates after use were recorded.

**Results:** For the 40 subjects, the average age was 70.4 years, the average of parity, body mass index, and menopausal age were 4, 24.5 kg/m<sup>2</sup>, and 22 years, respectively. The reasons for choosing a pessary included mostly risks and reluctance to undergo surgery. The complications from using a pessary were vaginal erosion, which was found in one case. Thirty-seven patients (92.5%) were satisfied and continued to use pessaries.

**Conclusion:** Most POP patients had a favorable outcome in terms of satisfaction with the pessary use and continued to use pessaries.

**Keywords:** Pessary, Pelvic organ prolapse, Satisfaction

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The word pessary is derived from the Greek *pesos* and the Latin *pessarium* meaning an oval-shaped stone<sup>(1)</sup>. There had been written to pelvic organ prolapse (POP) in both the Kahun papyrus (circa 2000 B.C.) and the Ebers papyrus (circa 1500 B.C.)<sup>(1,2)</sup>. The use of a pessary for treating the disease was explained by Hippocrates for the first time in 400 B.C.<sup>(3,4)</sup>. In another point of view, the pessary had been used as the only method for treatment of POP for a long time until surgical methods were introduced, and according to the American Medical Association, 123 kinds of pessaries had been developed by 1867<sup>(5)</sup>.

POP is a common condition. There are two methods of treatment for symptomatic POP, they are pelvic reconstructive surgery and insertion of a pessary. The life-time risk of undergoing surgery for

POP by age 80 years is reported to be 11%<sup>(6)</sup>. Given that the risk of recurrent POP after surgery is at least 10% to 20%<sup>(7,8)</sup>, initial conservative treatment with a pessary is worthwhile, especially if success rates are similar. Recently, the National Institutes of Health (NIH) required the assessment of the pessary in comparison to a surgical method in the treatment of POP, but designing a meaningful investigation has been limited by the lack of consensus regarding the appropriate use of pessaries<sup>(9)</sup>.

In Thailand, no study has been reported on the use of pessary and clinical experiences are still insufficient so far. Insertion of a pessary for treatment of POP has been introduced in the Urogynecology Unit of Ramathibodi Hospital, Faculty of Medicine, Mahidol University since 2003 but is still lacking in clinical point of view. In the present study, the authors studied the general characteristics of POP patients who used a pessary, the pessary type, the reason for using

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a pessary, the symptoms and satisfaction of the patients after using pessary, and the continuation rate.

### Material and Method

Between March 2007 and April 2008, the authors conducted a prospective, observational study that was approved by Ramathibodi Institutional Ethical Committee Review Board. Forty POP patients who visited the Urogynecology Unit of Ramathibodi Hospital, Faculty of Medicine, Mahidol University and used a pessary represented the cohort for the present study. The average age, parity, average body mass index, menopausal age, as well as reasons for pessary use were collected in the present study, and whether each subject had lower urinary tract symptoms such as urinary incontinence and urinary frequency was considered. The POP of the subjects was graded according to the Pelvic Organ Prolapse Quantization system (POP-Q)<sup>(10)</sup>. Before pessary use, the authors counseled the patients and their relatives as to how to use and take care of the pessary. The largest suitable type of pessary that was comfortable for the patients were used. For POP patients with intact perineal support the authors tried the ring with support first. For POP patients with poor perineal support the authors used the space occupying pessaries. The authors appointed the pessary used patients in three visits after the initial application, one-week, one-month, and three-months accordingly. The satisfaction, complication, and continuation rates were recorded.

### Results

For the 40 subjects, the average age was 70.4 years; the average of parity, body mass index and menopausal age were 4, 24.5 kg/m<sup>2</sup>, and 22 years, respectively (Table 1). The POP grade was determined by POP-Q. Three patients (7.5%) were in stage II, 13 patients (32.5%) in stage III, and 24 patients (60%) in stage IV. Meanwhile, 27 patients had a personal history of illnesses such as hypertension, diabetes, heart disease, thyroid disease, and breast cancer (Table 1). Seventeen patients (42.5%) had lower urinary tract symptoms (Table 2). All of the urinary symptoms were improved after pessary use. All of the POP patients who had lower urinary tract symptoms were satisfied and continued to use pessaries. The types of pessaries were mostly ring with support (Table 3). The reasons for choosing a pessary included mostly the risk and reluctance to undergo surgery (Table 4). The complications from using a pessary were vaginal erosion, which was found in one case.

**Table 1.** Prevalence of past medical and surgical illness (p = 40)

Past illness	No of patients (%)
Yes	27 (67.5)
(one patient may have many illnesses)	
Hypertension	17 (42.5)
Diabetes Mellitus	7 (17.5)
Heart disease	8 (20.0)
Pulmonary disease	1 (2.5)
Thyroid disease	1 (2.5)
Breast cancer	2 (5.0)
No	13

**Table 2.** Prevalence of lower urinary symptoms

Lower urinary symptoms	No of patients (%)
Yes	17 (42.5)
Urgency	4 (10.0)
Frequency	1 (2.5)
Mixed incontinence	1 (2.5)
Stress incontinence	7 (17.5)
Partial obstruction	2 (5.0)
Overactive bladder	2 (5.0)
No	23 (57.5)

**Table 3.** Types of pessary use

Types of pessary use	No of patients (%)
Donut	1 (2.5)
Cube	1 (2.5)
Short stem Gellhorn	4 (10.0)
Ring with knob	4 (10.0)
Ring	2 (5.0)
Ring with support	14 (35.0)
Shattz	7 (17.5)
Ring with support with knob	3 (7.5)
Disc with support	3 (7.5)
Disc with knob	1 (2.5)
Total	40 (100)

**Table 4.** Reasons for choosing a pessary

The reason for choosing a pessary (one patients may have many reasons)	No of patients (%)
High risk for surgery	25 (62.5)
Reluctant to undergo surgery	9 (22.5)
During awaiting surgery	5 (12.5)
Defect after surgery	5 (12.5)
Total	44 (100)

Thirty-seven patients were satisfied and continued to use pessaries

### Discussion

POP is a disease without mortality and minimal morbidity but impacts on quality of life, and, much more, it occurs with urinary problems<sup>(11)</sup>. The incidence of POP is 30-50%, most are asymptomatic, and it increases with age<sup>(12-14)</sup>. Thai menopausal women have POP 43.3%<sup>(15)</sup>. The treatments for POP consist of observation and nonsurgical or surgical methods. Several kinds of surgical techniques are being used to treat POP, and their success rates are considered to be 77-97%<sup>(16)</sup>. The use of a pessary, one of the non-surgical methods, has been applied for those who could not undergo surgery because of high risk factors or who were reluctant to be submitted to surgery<sup>(4)</sup>. There are two types of pessaries. The first is support pessary, which is applied in the intact perineal support, stage II and early stage III. Ring with/without support, Gehrung, Hodge, Shaatz pessaries are support pessaries. The other type of pessary is space-occupying pessaries. They are used in less perineal support with wide genital hiatus and advanced POP. Gellhorn, Donut, Cube, and Inflatable pessaries are space occupying pessaries. The eastern POP women do not like to use pessaries because they must insert them into the vagina. In Ramathibodi Urogynecological clinic, the authors have found that more than 50% of POP patients chose to use a pessary for treatment after counseling for the choices of POP treatment, because they were afraid of the surgical method. The objective of the present study was to study the characteristics, satisfaction, and continuation of Thai POP patients in pessary use. The authors found that almost all of POP patients were satisfied with pessary use and all satisfied pessary-use patients continue to use them. Before pessary use, the authors had a good counseling team to give instruction as to how to use and care for the pessaries and choose the best type and size that were appropriate for the POP patients. The authors had also to select the appropriate POP patients for pessary treatment. The good counseling and appropriate selection of POP patients will improve the satisfaction and continuation in pessary use.

Many researches have reported on the complications induced by using pessary such as erosion, foul odor discharge, and occlusive symptoms<sup>(16)</sup>. Most of the discharge came from inflammatory response. Local estrogen cream application and usual removal

and washing of pessary can diminish the inflammatory discharge. Partial decline in blood flow by a pessary may cause lesions such as erosions, ulcers, and necrosis by continuous pressure from the fistula to the adjacent organs such as the vesicovaginal fistula and the rectovaginal fistula. In the present study, 2.5% (1 in 40) of the POP patients who used pessary had complications such as erosion but none had a severe complication. The vaginal erosion in this patient came from poor lubrication. After the adequate lubrication and a short cessation of the pessary use, the vaginal erosion improved and the patient resumed using the same pessary. Three of forty POP patients who used pessary felt discomfort and would like to have operations.

In summary, pessaries were effectively used as the treatment of POP when various kinds of pessaries were used. Good follow up and a good counseling team play an important role in continuation and satisfaction in pessary use.

### Conclusion

Most POP patients had a favorable outcome in terms of satisfaction with the pessary use and continued to use a pessary. Pessary use for POP treatment is a good choice for Thai POP patients.

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## ลักษณะและความพึงพอใจของผู้ป่วยที่ใช้อุปกรณ์พยุงอวัยวะในอุ้งเชิงกราน

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**วัตถุประสงค์:** เพื่อศึกษาถึงลักษณะของผู้ป่วยอวัยวะอุ้งเชิงกรานหย่อนที่เลือกใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกราน เหตุผลของการเลือกใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกราน อาการและความพึงพอใจของผู้ป่วยภายหลังการใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกราน

**รูปแบบการรักษา:** การศึกษาเชิงพรรณนาแบบไปข้างหน้า

**สถานที่ทำการศึกษา:** คลินิกนรีเวชทางเดินปัสสาวะและอวัยวะสืบพันธุ์ คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

**วัสดุและวิธีการ:** เก็บข้อมูลแบบไปข้างหน้าของค่าเฉลี่ยอายุ จำนวนการมีบุตร ดัชนีมวลกาย ระยะเวลาที่หมดระดู เหตุผลของผู้ป่วยอวัยวะอุ้งเชิงกรานหย่อนที่ใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกราน ความพึงพอใจ ภาวะแทรกซ้อน และอัตราการคงใช้ภายหลังใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกราน

**ผลการศึกษา:** จากจำนวนผู้ป่วยอวัยวะอุ้งเชิงกรานหย่อน จำนวน 40 ราย ค่าเฉลี่ยอายุเท่ากับ 70.4 ปี ค่าเฉลี่ยการมีบุตร 4 คน ดัชนีมวลกาย 24.5 กิโลกรัมต่อตารางเมตร ระยะเวลาหมดระดูเฉลี่ย 22 ปี เหตุผลที่เลือกใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกรานส่วนใหญ่คือ กังวลเรื่องความเสี่ยงจากการผ่าตัดและสิ่งที่จะทำการผ่าตัด ภาวะแทรกซ้อนภายหลังใช้อุปกรณ์พบ 1 ราย คือ ช่องคลอดเป็นแผลถลอก ผู้ป่วย 37 ราย (92.5%) พอใจและยังคงใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกรานต่อไป

**สรุป:** ผู้ป่วยอวัยวะอุ้งเชิงกรานหย่อนยานส่วนใหญ่ มีความพึงพอใจและคงใช้อุปกรณ์พยุงอวัยวะอุ้งเชิงกรานหย่อนยาน